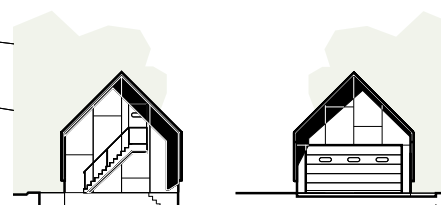
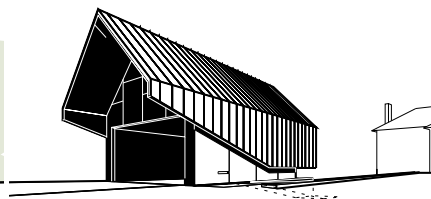
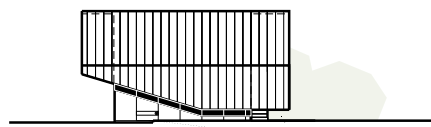
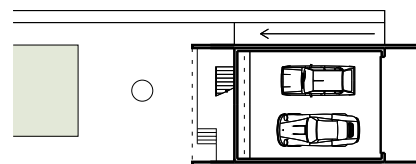
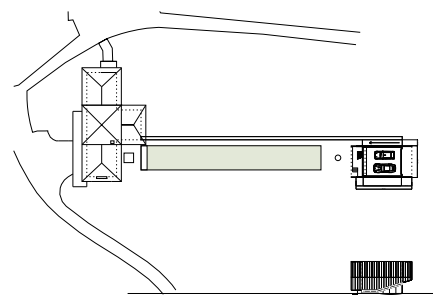
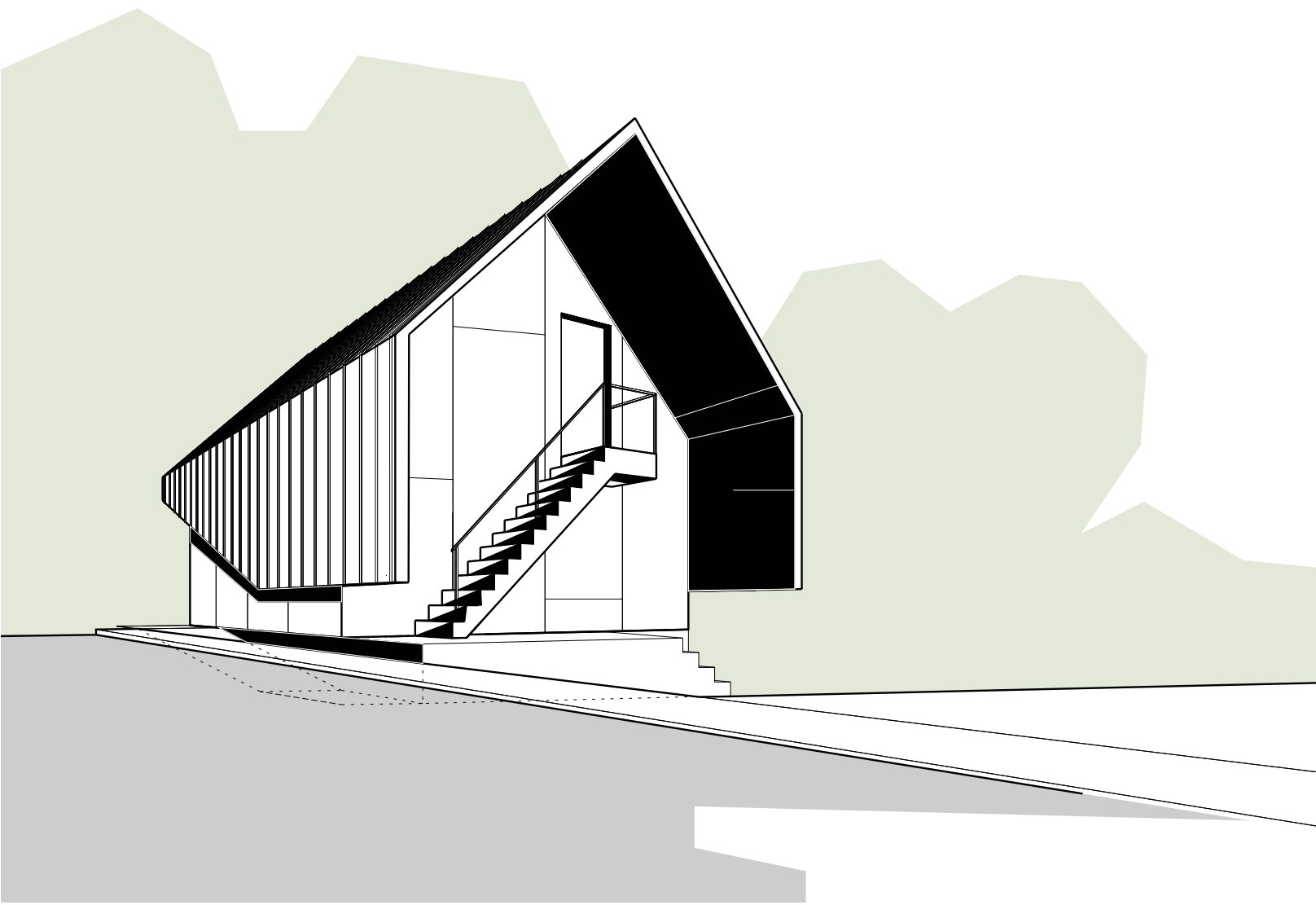


**SCOTT AXEL**  
**PENNSYLVANIA STATE UNIVERSITY**  
**STUCKEMAN SCHOOL OF ARCHITECTURE 2016**

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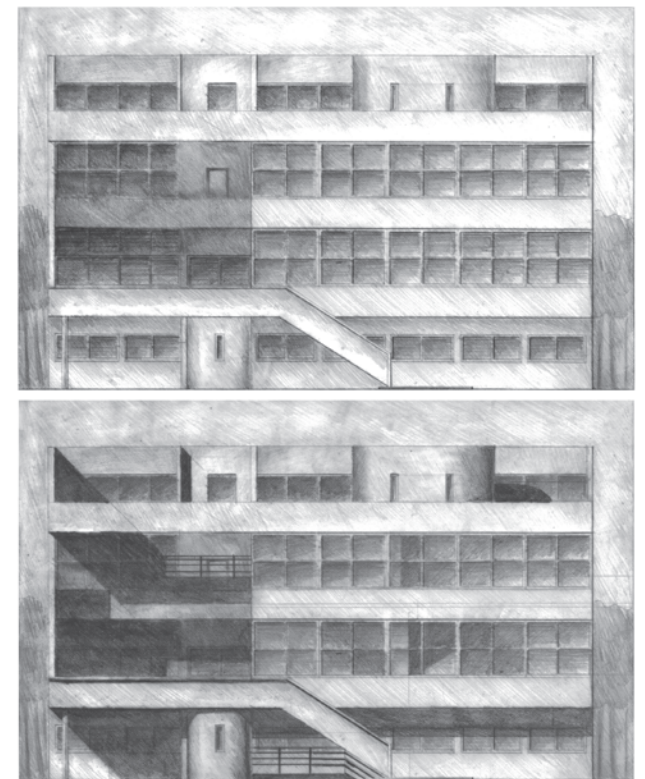
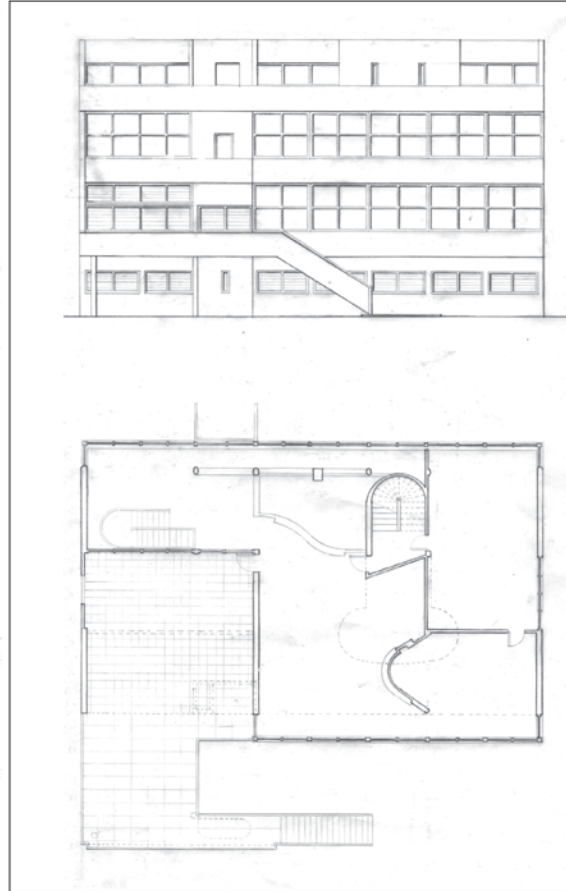


This project was in collaboration with Scott Erdy of Erdy McHenry Architecture. He had conceptual sketches of his own garage and how he wanted it to turn out. After learning the basics of his ideas and MicroGDS Collaboration software, I put together rudimentary plans that would combine a garage with a loft for guests.

Being my first experience in an architectural office, I was pleased to find the work exciting and driving of myself. Later on I found that he had actually made the garage on his own property almost identical to the drawings that I had made.

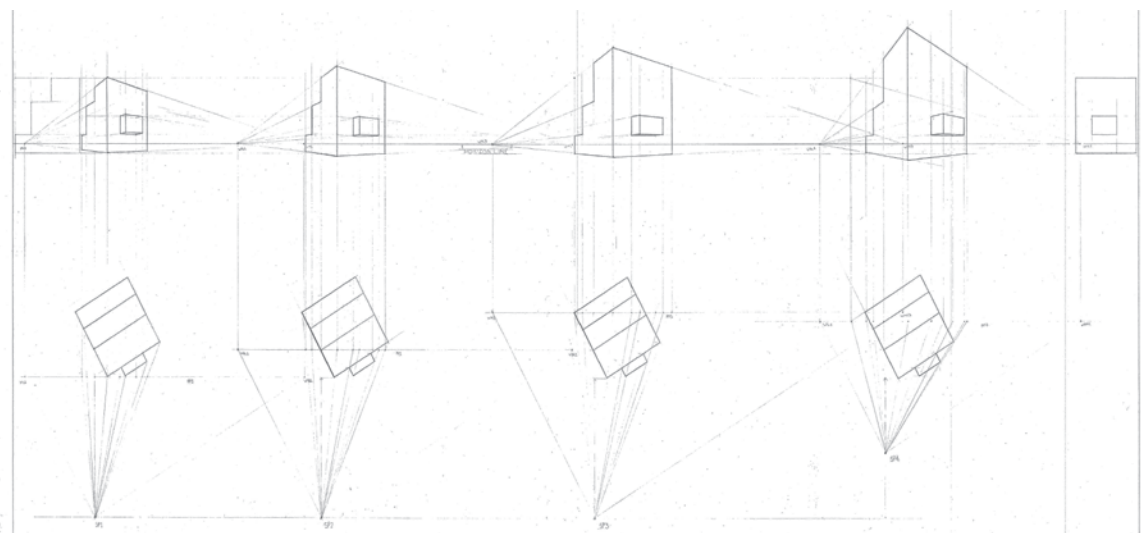






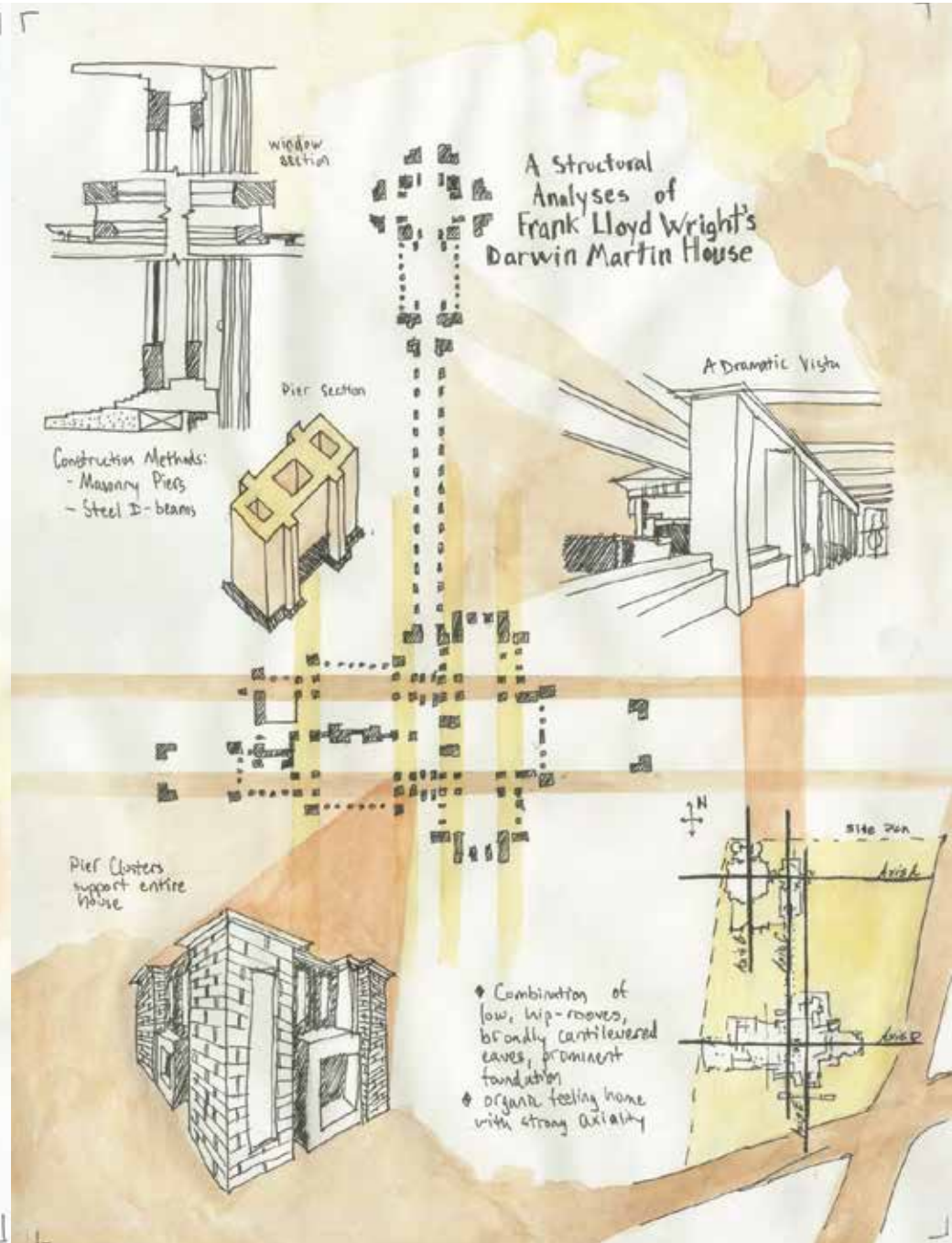
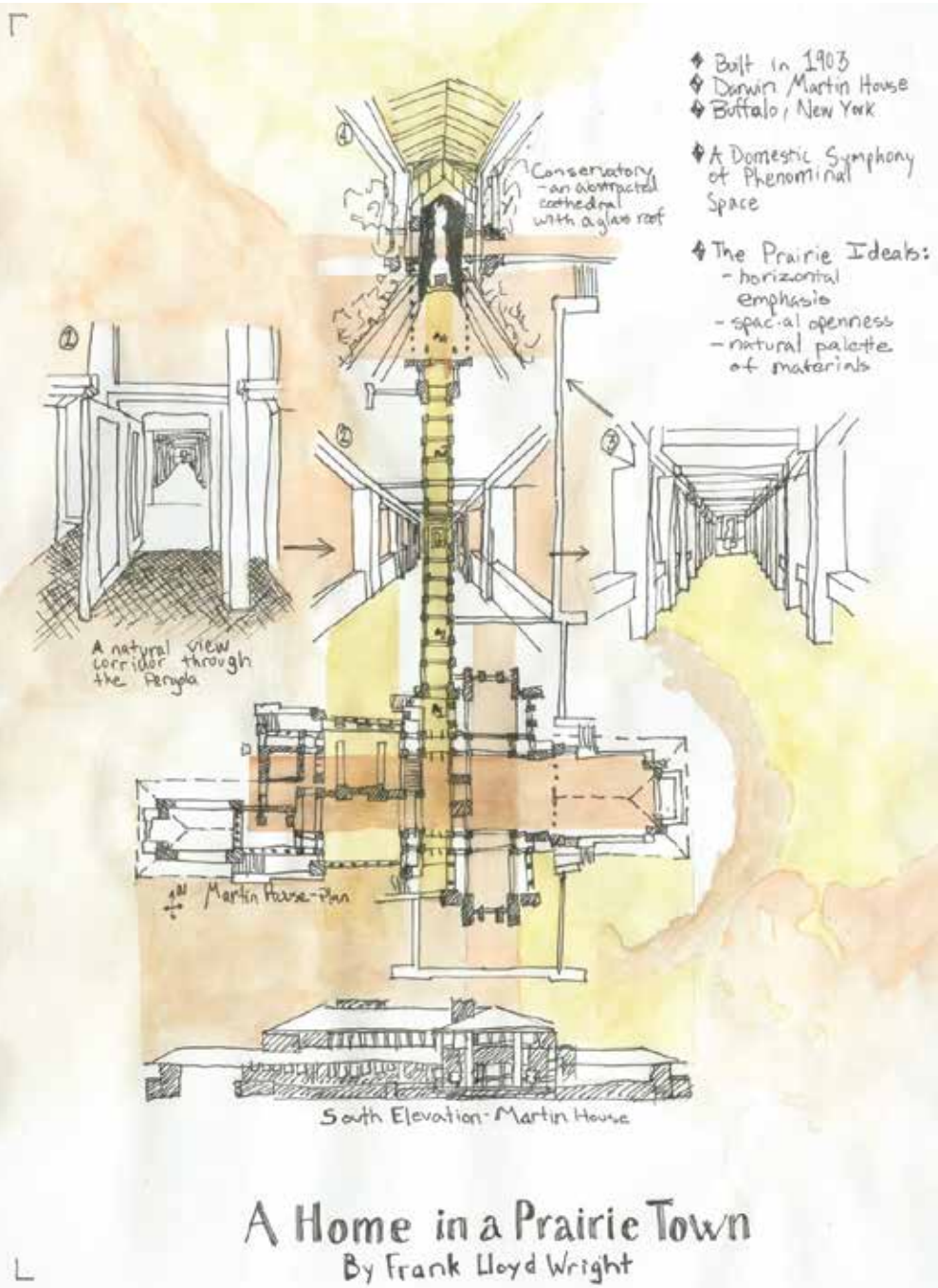
## Villa Stein de Monzie

1926 - Le Corbusier Scott Axel - Prof. Jamie Cooper

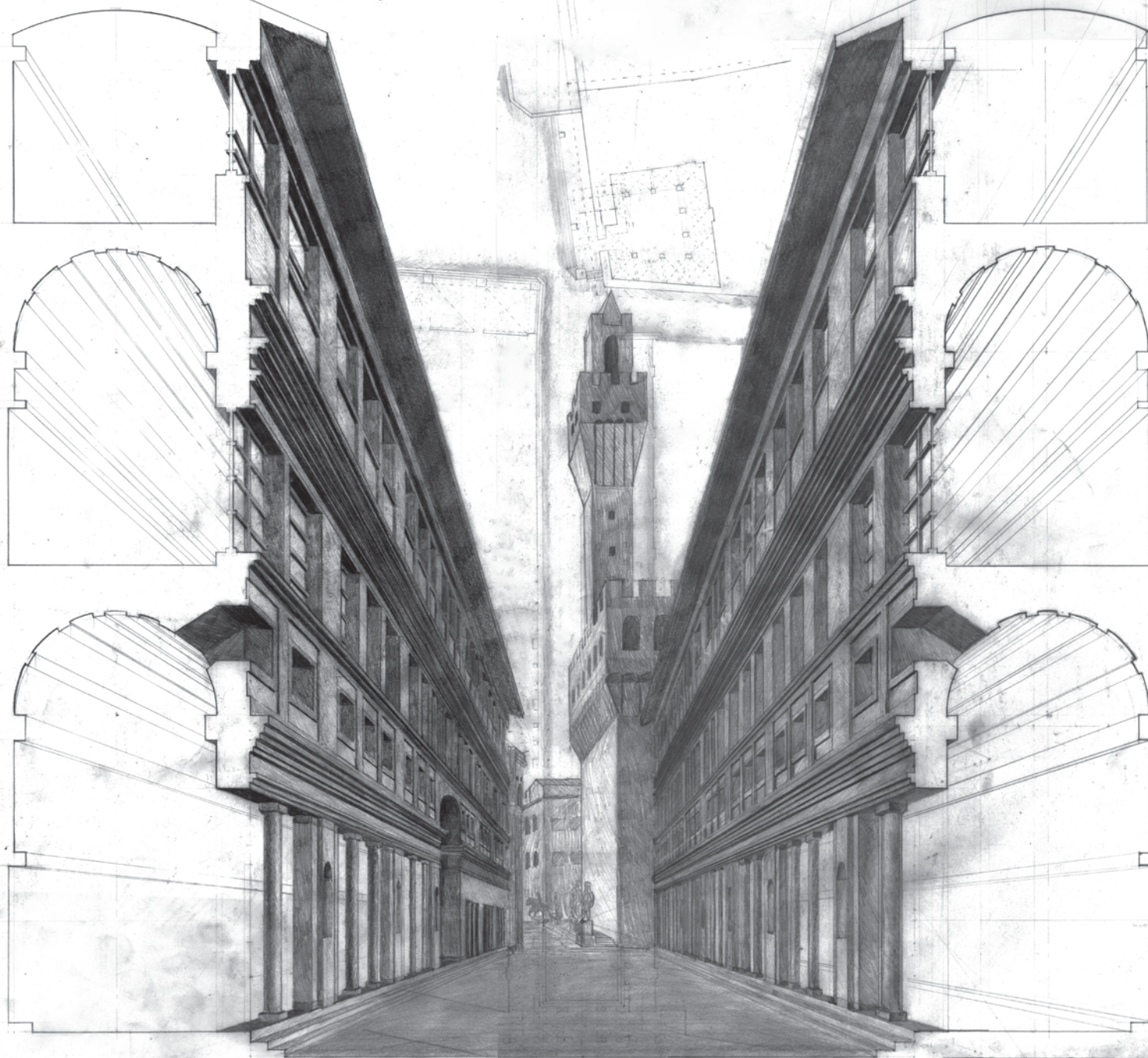


The first semester of my architecture education consisted of a class called visual communications. In this class we covered the various methods to achieving great drawing skills as well as producing them. We covered basic plans and section, as pictured in the Rufer House, perspective in the Villa Moller, and light, shade and shadow in the Villa Stein composition above.

Across is an analytique of the Darwin Martin House by Frank Lloyd Wright. It consists of two pages of ink and watercolor that accentuate the conceptual and physical characteristics of the house. We delved into composition with this project, which is one of my favorites of the whole year.





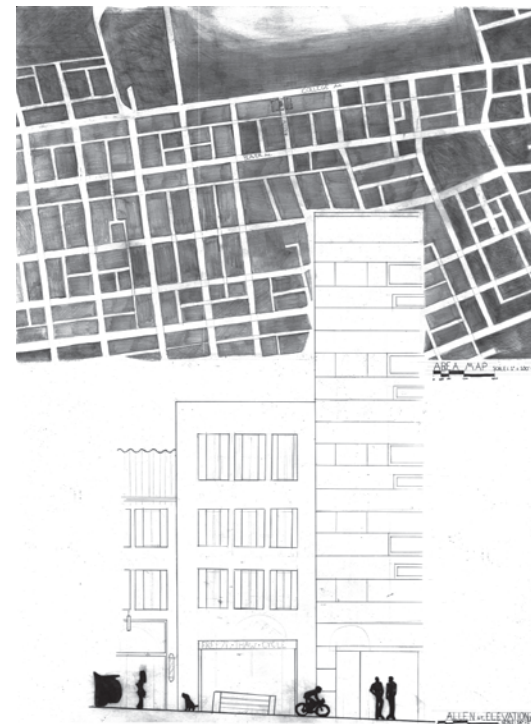
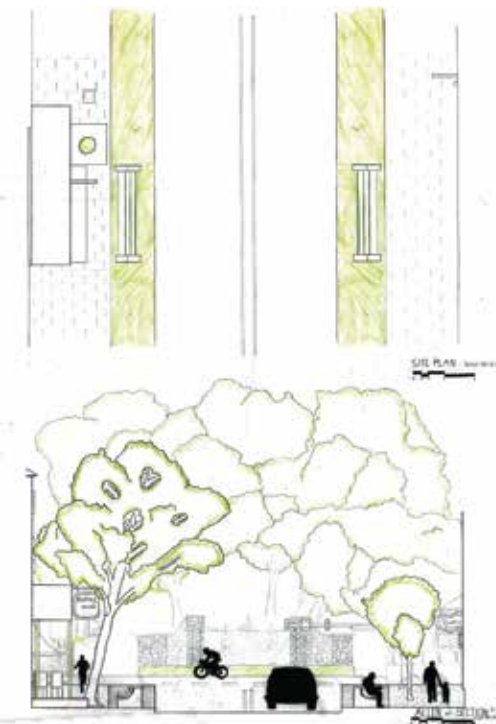


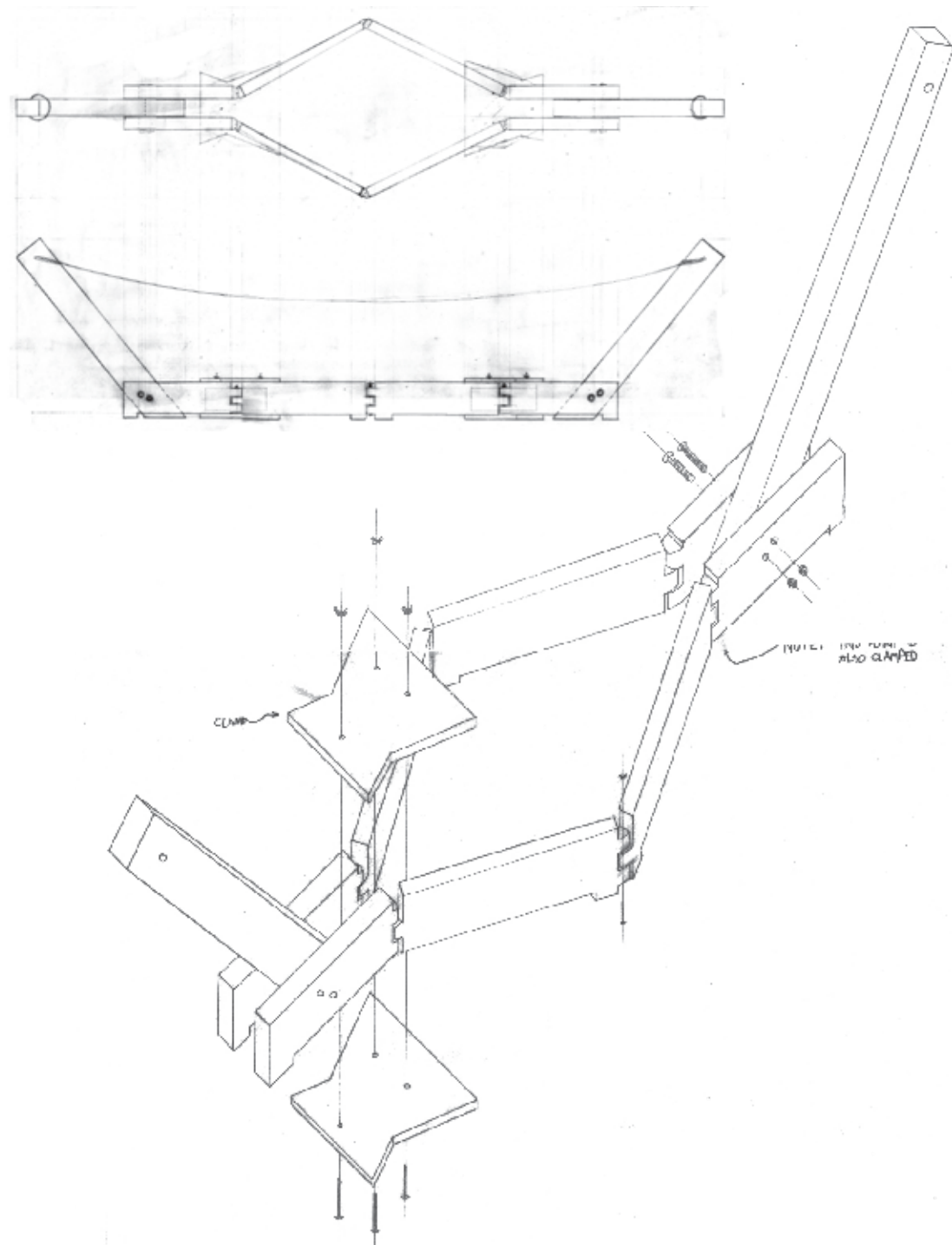
The Uffizi one point perspective was the coupe-de-gras of my first year experience. It brought together the ancient architecture I had been learning about, the drawing techniques, the understanding of plans, sections, and perspective, as well as composition and shading. This was by far the most challenging assignment of the whole year.





Park[ing] day was a collaboration between upperclassman landscape architecture students and a small group of my fellow first year students and I. We provided design insight and helped construct the final product depicted to the left. Then we were tasked with designing an intervention at the sight that would help make the installation fit in better permanently. Although my design skills were not the best at the time, I feel like this work shows my growth in composition of boards, drawing skill, and material considerations in physical projects. The water bottles were all recycled and cleaned by hand by our group, and the bamboo was used because it was an easily reused material.





The collapsible hammock was part of a project that would be the first that required physical prototyping. Through much iteration, I came upon a design that would fold up into a small box so that it could be easily used on camping trips, vacation, etc. I enjoyed the challenge of a project that made me think about the physical ramifications of design. The hammock held up to 160 lbs.

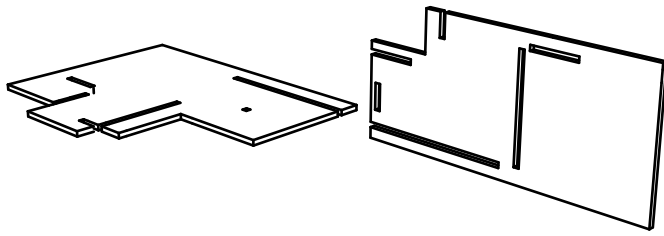


The Cave project was the first project particularly addressed at a client. I were assigned a mythical creature, and although unrealistic, it tested my ability to make an architectural product that still complies to a picky client. The cave was designed for a mer-folk type creature. It was located underwater with multiple levels, drawing from my early education in architectural history of basilicas and cathedrals. This was also a project that tested my ability to make a model that would help make my architectural ideas speak clearer than my drawings. This project was made out of foam carved on various saws and using a hot knife. I tested various methods of painting

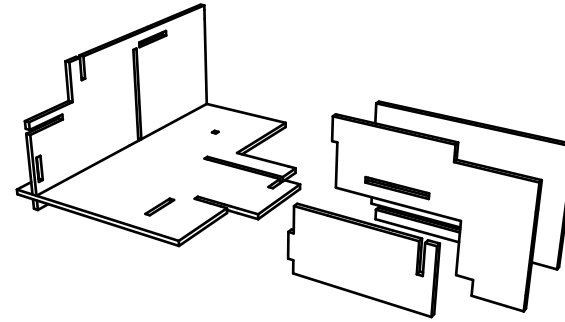


as well as carving techniques. This project also started my venturing into grounded subtractive design. Materiality was also a strong influence in this project.

1



2



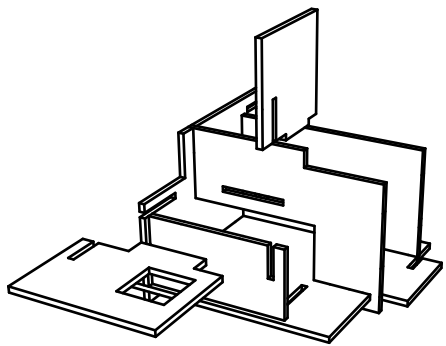
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These projects all related around digital modeling and precedent analysis. This was the first course in which digital software programs were the priority and I picked up on them right away. Programs covered were: Revit, Sketchup, Rhino, Pepakura, Photoshop, and Illustrator.

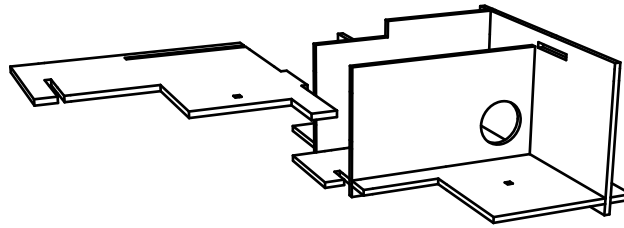
The Schroder House was the precedent assigned to me, and I quickly discovered that Revit was a strong suit of mine. Later in the course we designed a flat-pack birdhouse based on our precedent.



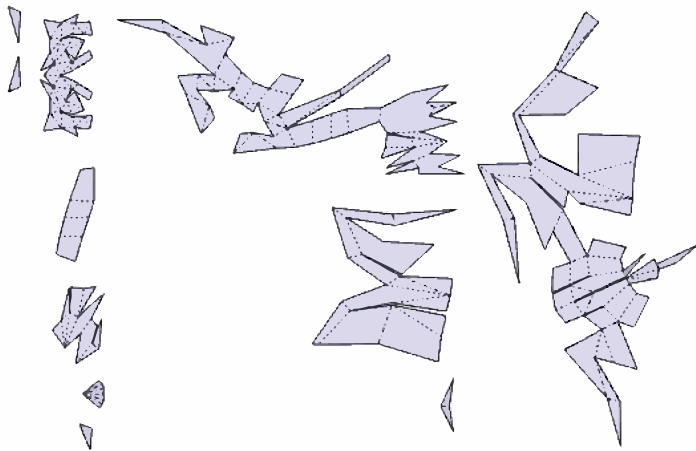
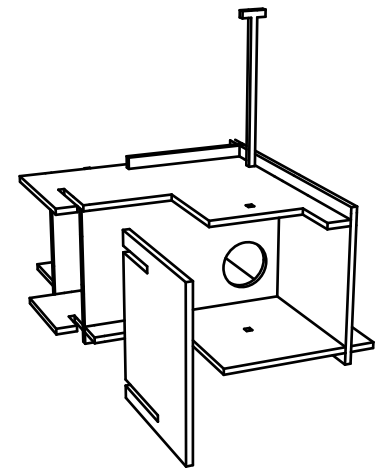




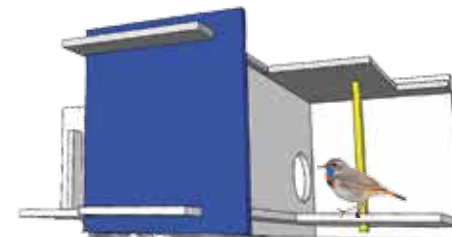
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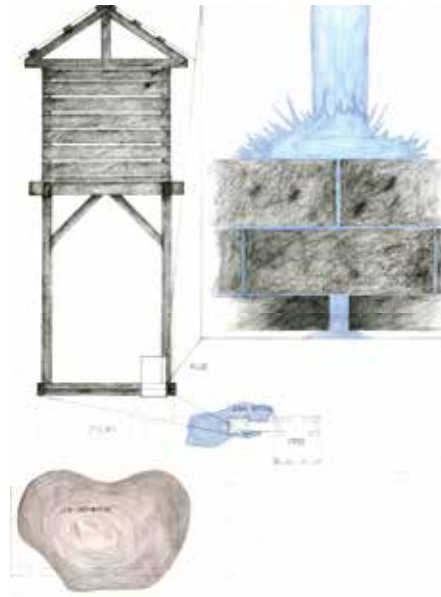
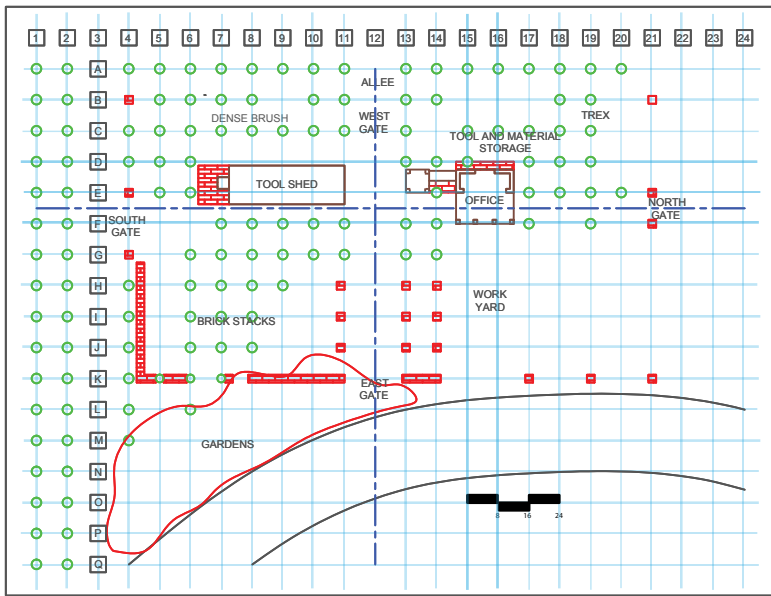


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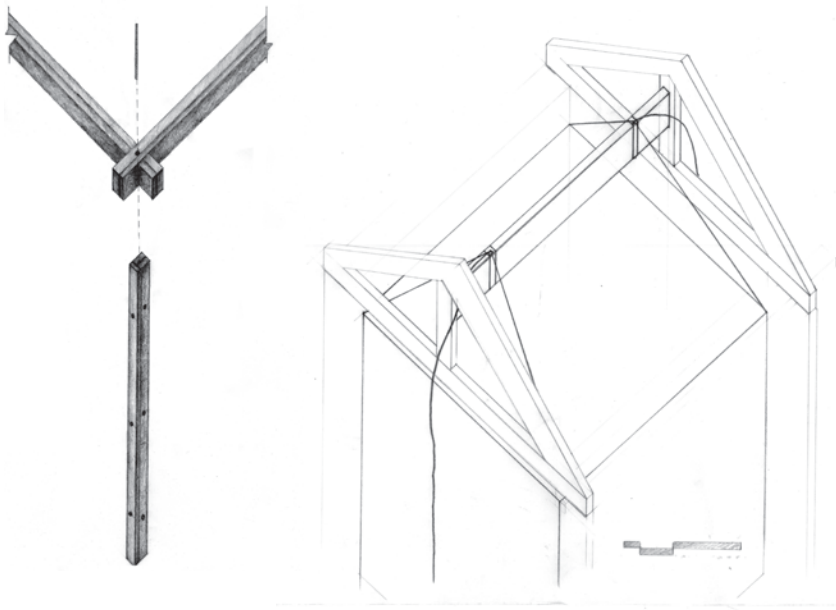
Part of the course was also dedicated to digital fabrication from computer , model to physical model. The bird to the left was made using Pepakura then cut on a laser cutter. This was the beginning of our training with the laser cutter and CNC.





## Water Tower - Design Build Spring 2012





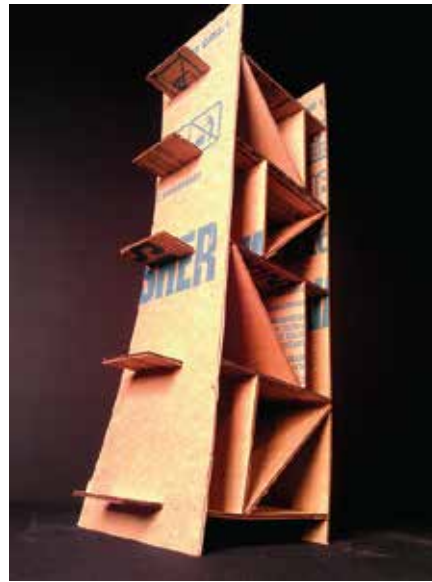
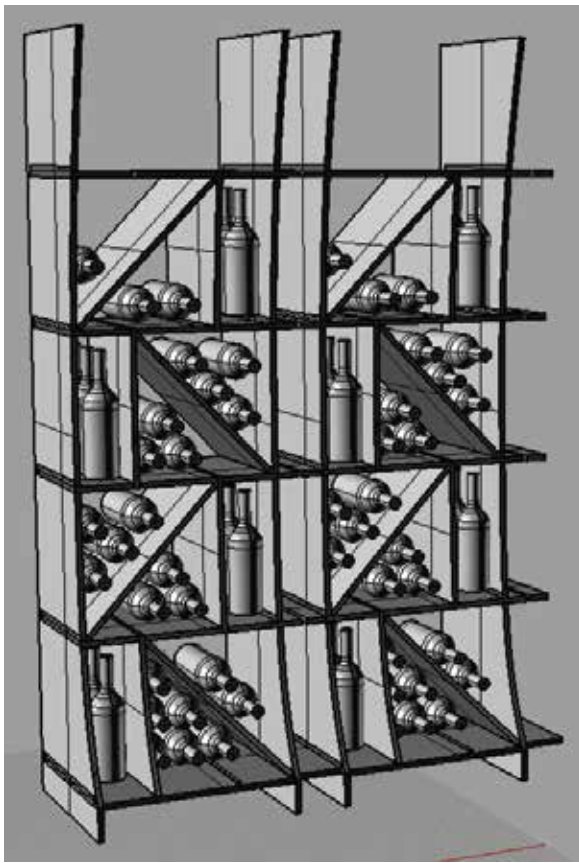
The final project of first year studio was a group project called 'design build.' This project was a start to finish, concept to constructed project. I was project manager for our group of 6. The criteria of this project had us connecting to a past use of materials (bricks used in the old architectural studios) and close-knit workings with the environment. By name our project was to design a water tower for the current cluster of buildings at the site. A big focus was to use rain water as a water source.

Our design included reused materials ranging from bricks to wood to metal roofing. The tower has future plans to be connected to the current structures so that even more rainwater can be collected. Various skills were learned during this project such as joint work of wood, and soldering.

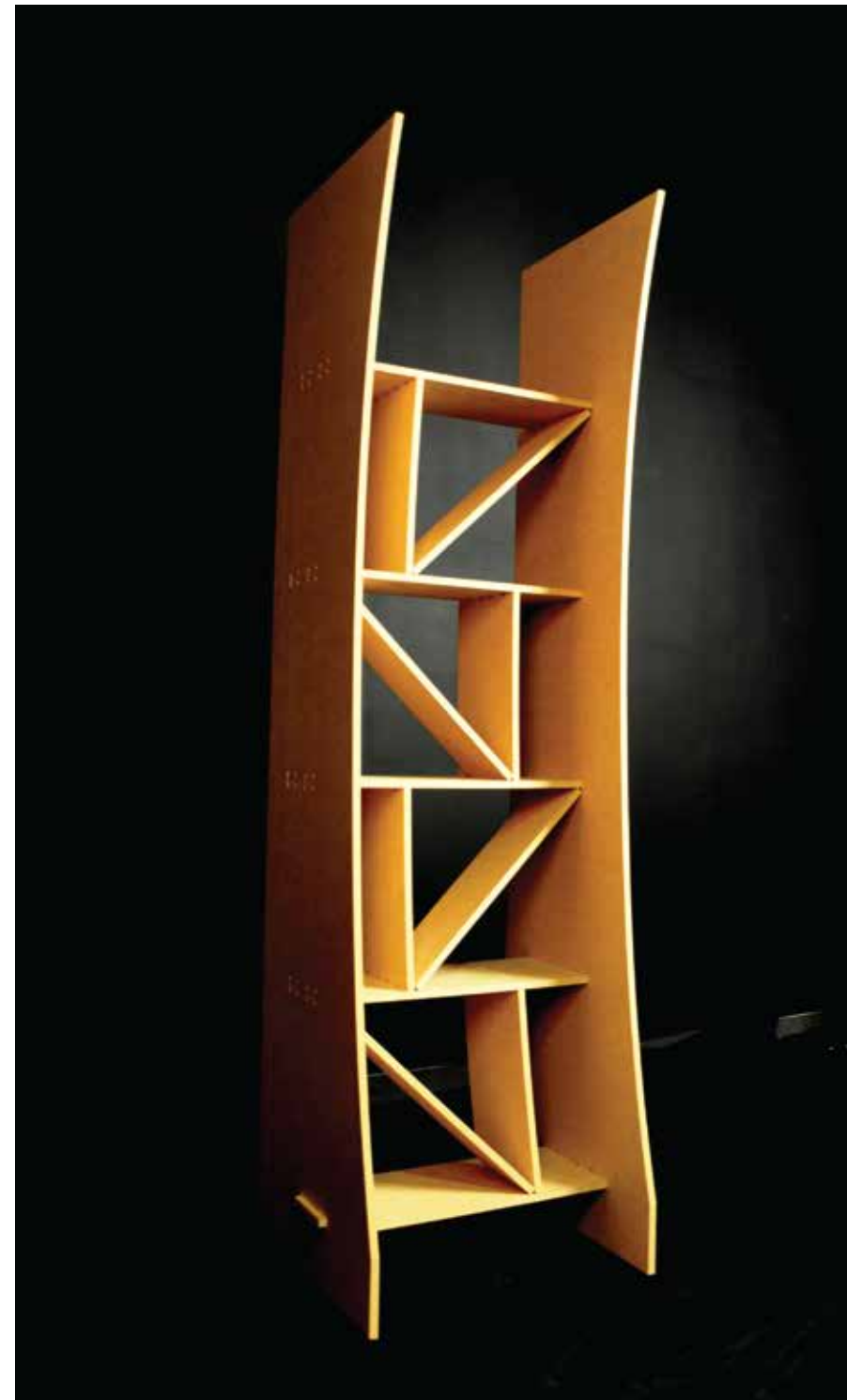
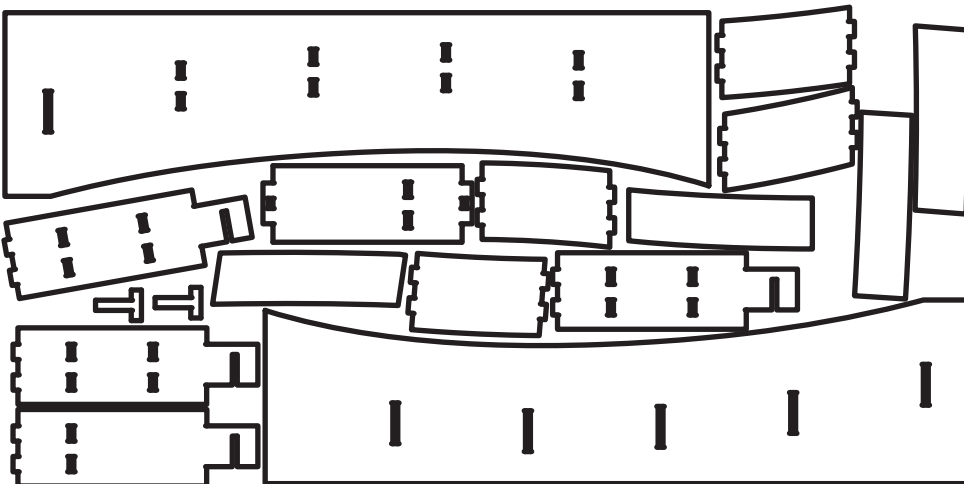


# Second Year

Fall 2012 - Spring 2013

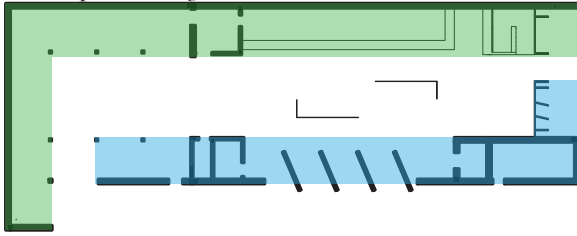


The winerack's goal was to be of flat-pack design, using the CNC machine. Major concerns included maximum storage space and fitting in with a current wine storage center. The curvature of the rack aligns with the curved walls of a wine cellar.

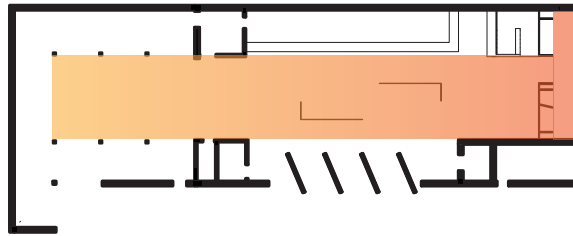




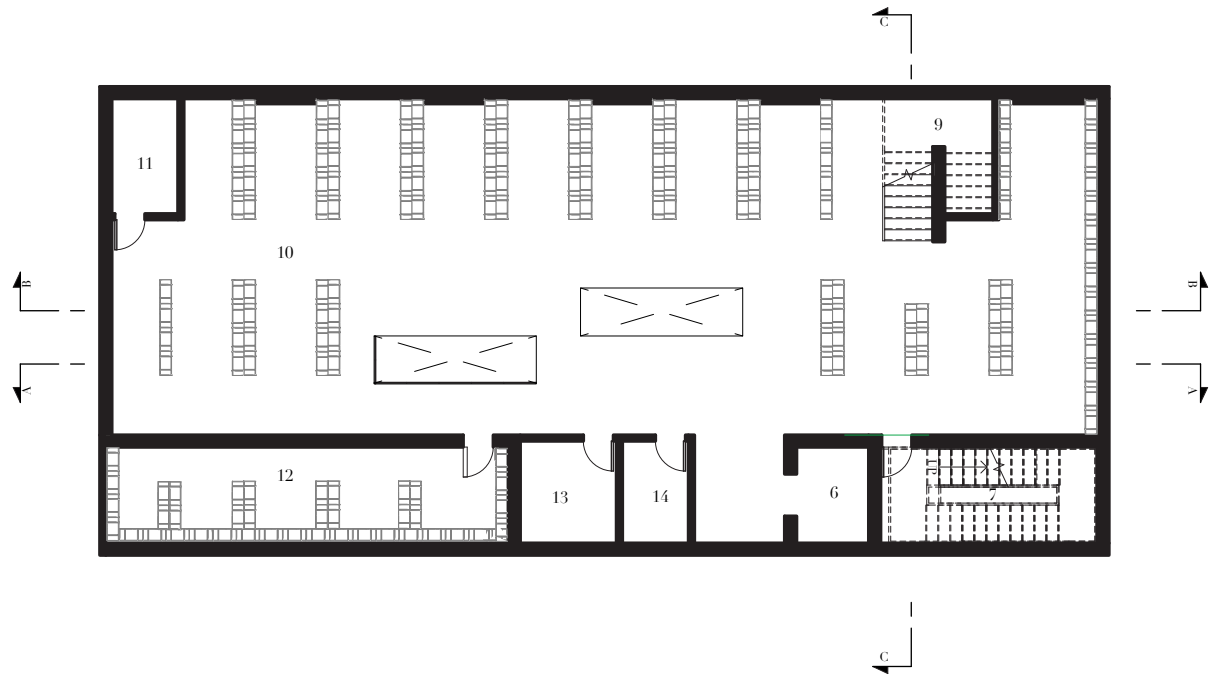
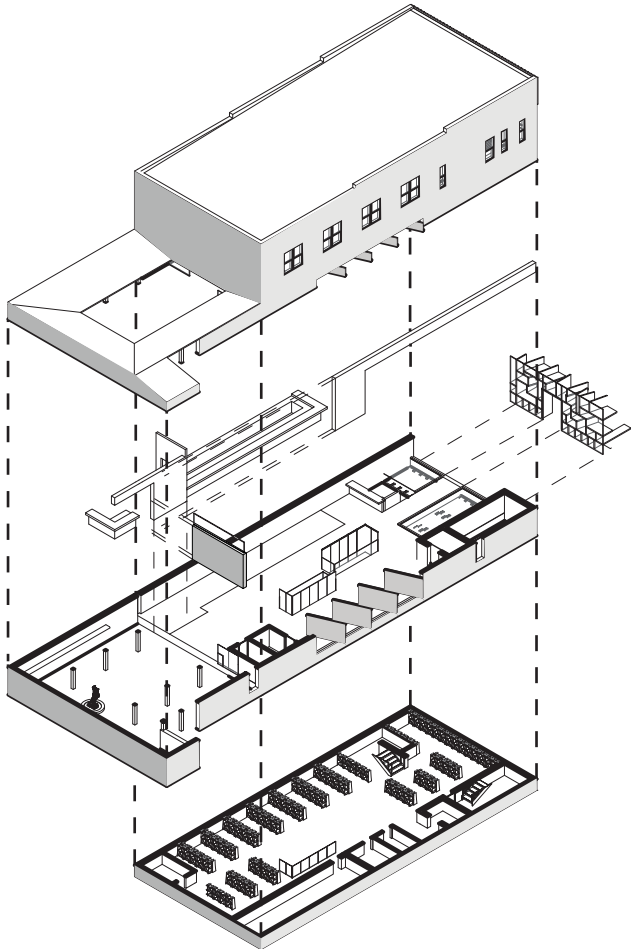
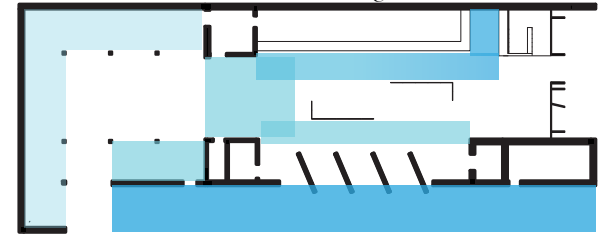
Conceptual Diagram - Ground Floor



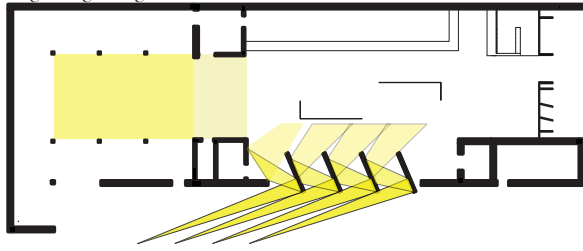
Public to Private Flow



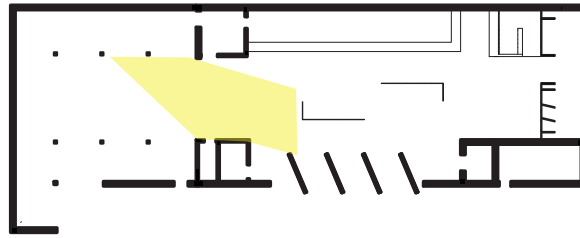
Public versus Private Seating



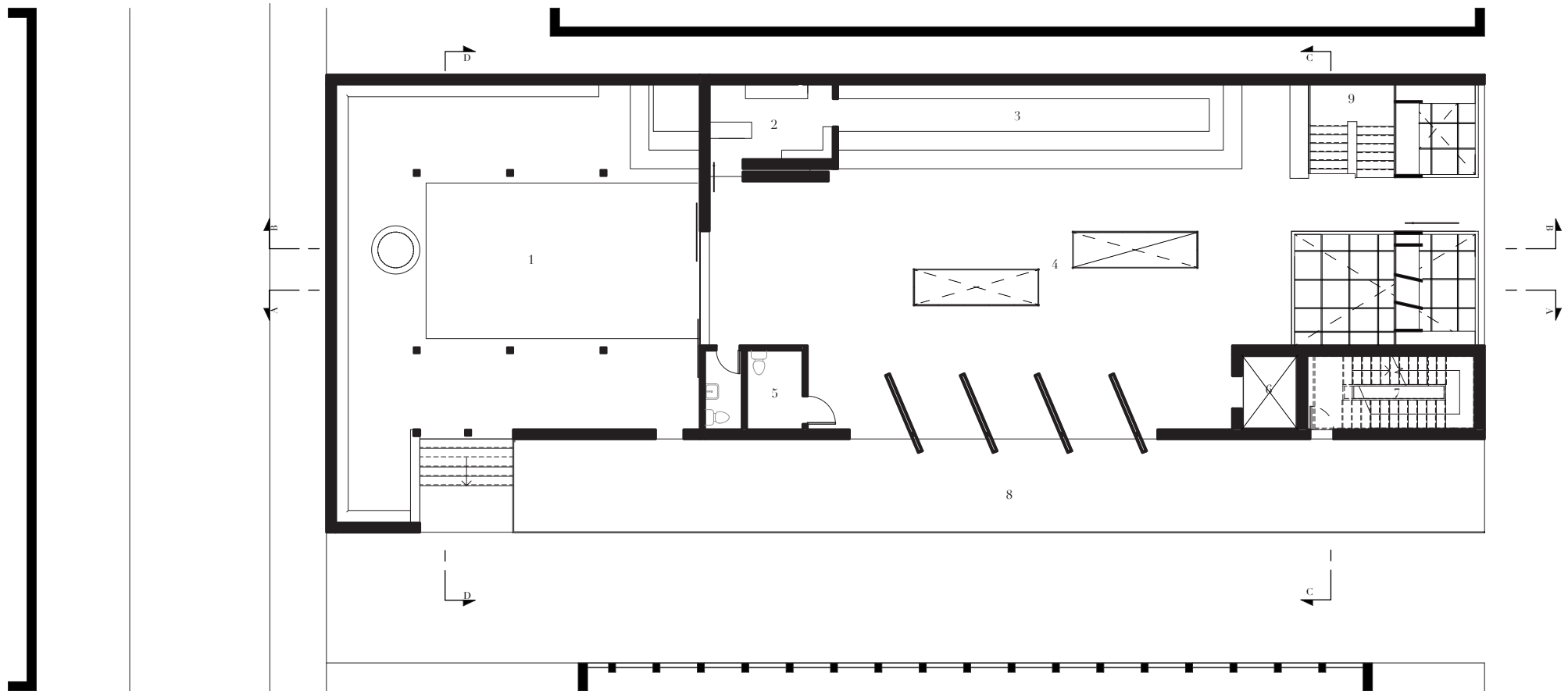
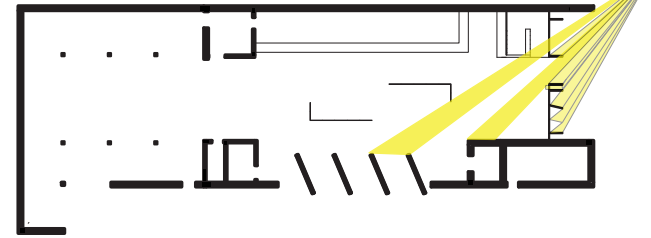
Lighting Diagrams 12 PM

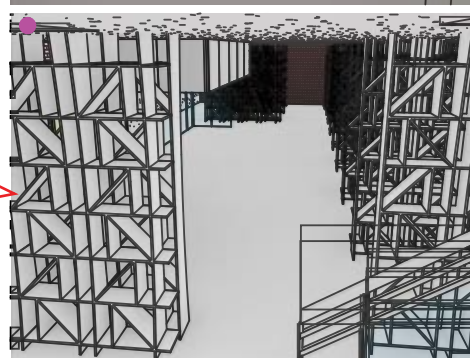
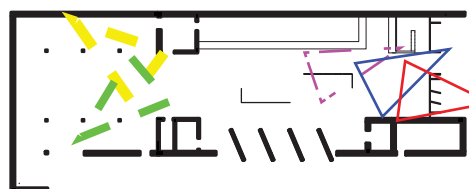
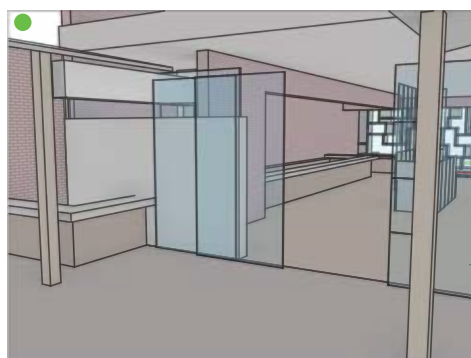
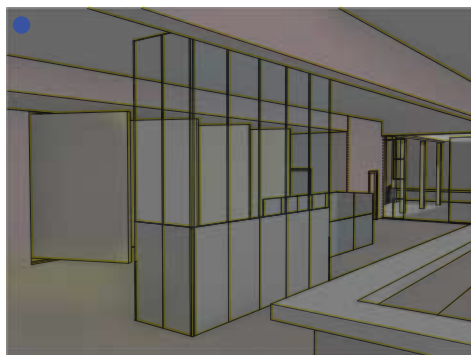


3PM



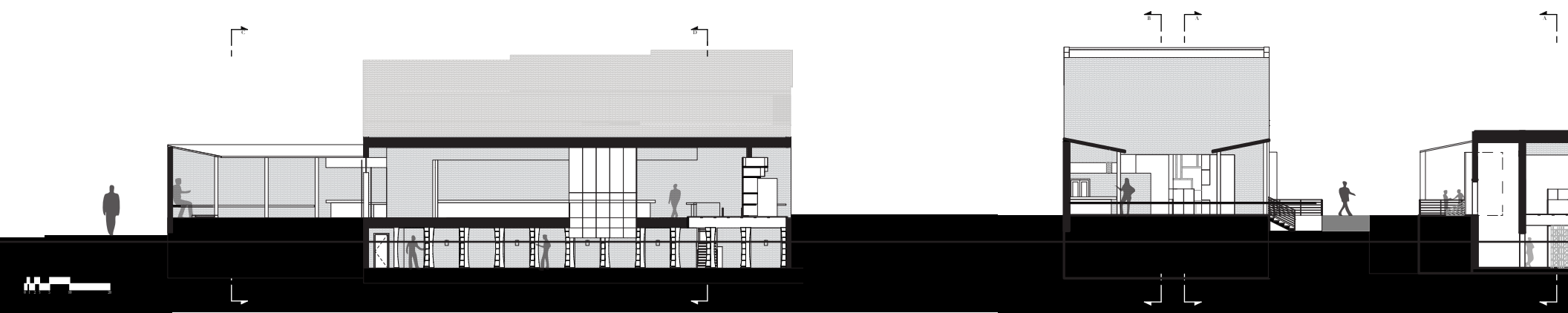
7PM



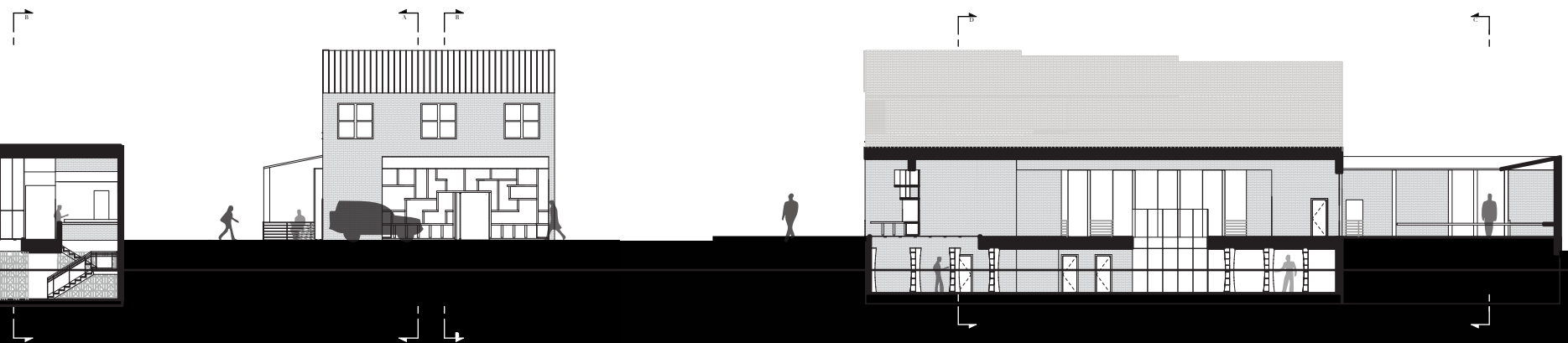
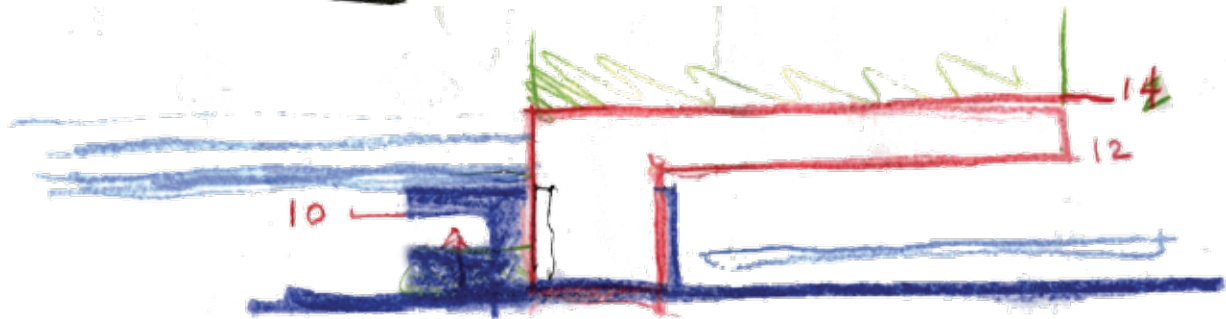
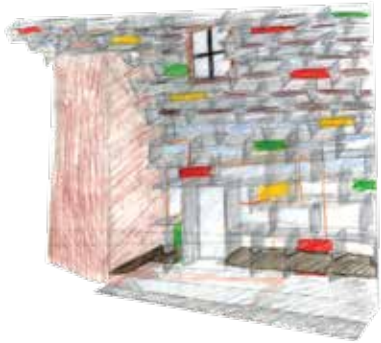
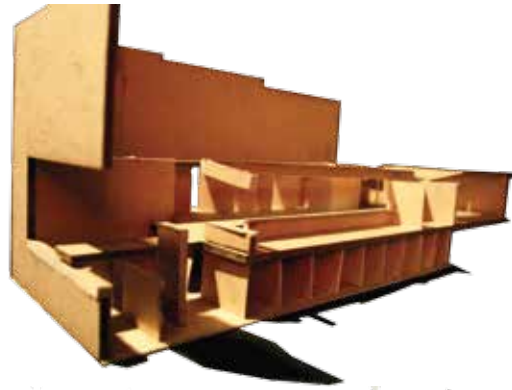
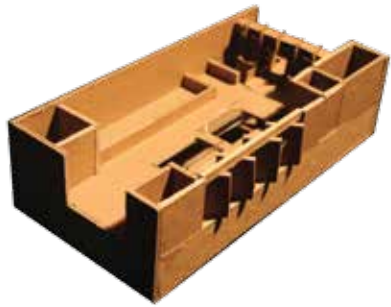


The Enoteca was the first all our design project of my second year studio. Located in State College, PA, this project was aimed for designing interior spaces more than facade design. The complex program of the Enoteca had me balancing dining with entertainment and commerce. I quickly realized this project was much more complex than any project in my first year. It was more complete in perspective and therefore required more attention concept.

I played with physical forms as well as subconscious forms created by lighting. Although not the most successful of my projects, this taught me valuable lessons in time management, rendering, concept development and modeling.







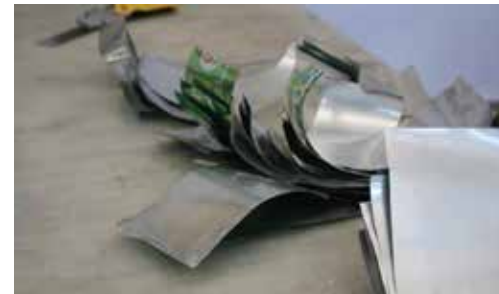


Derived from studies of Buckminster Fuller, the Geodesic Sphere project was intended to make us think of non traditional modular construction down to the detail.

The intent of the sphere was to make it out of natural and recycled material. The outer sphere is made of vines in a wedge formation with intended variation because of the material choice. The interior facade is made of woven aluminum cans using rivet connections. The contrasting materials are a statement about the beauty and natural order of nature and architecture.



1. Cut tops off soda cans and cut can into a rectangular sheet

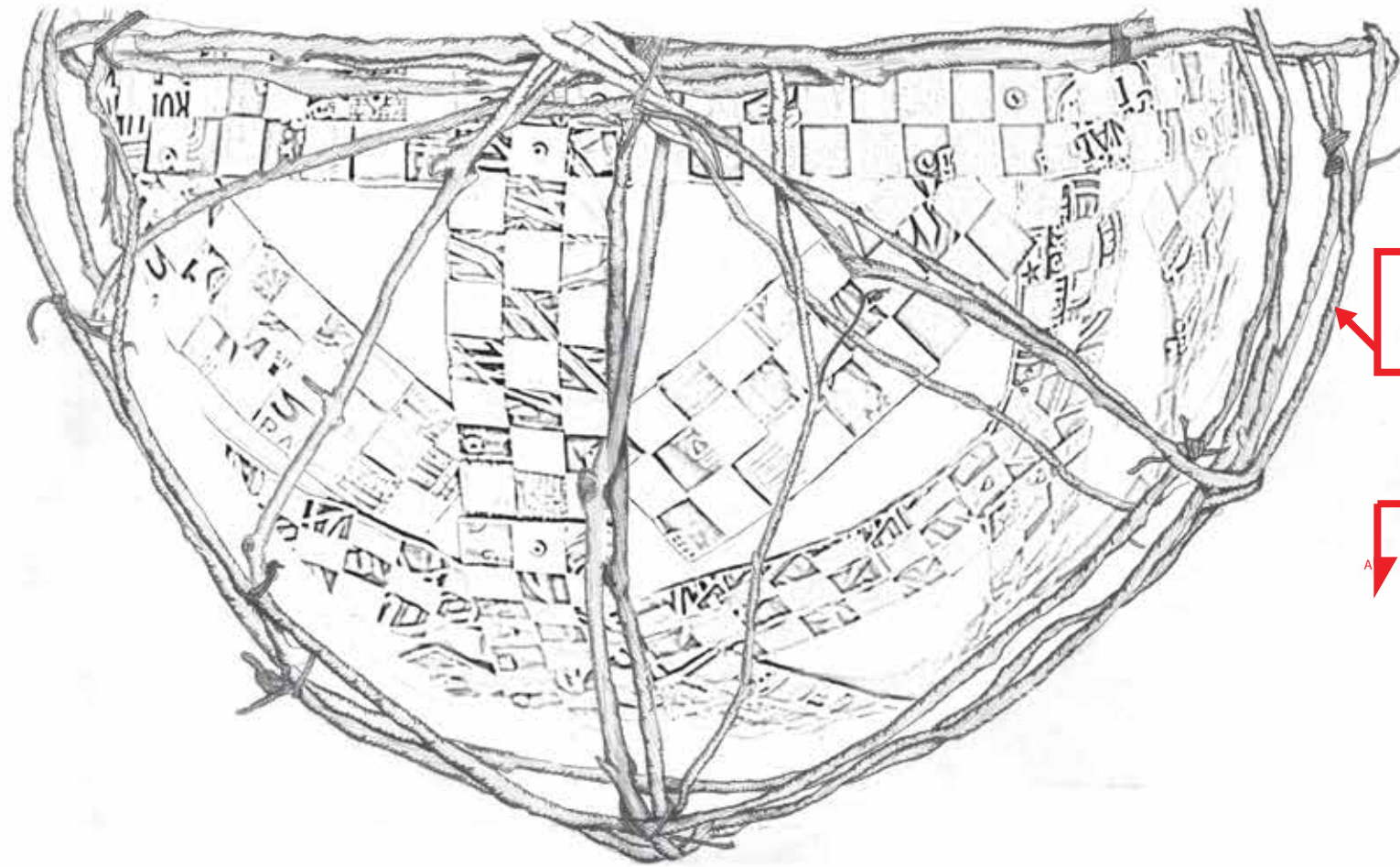


2. Cut sheets into 3/4" strips



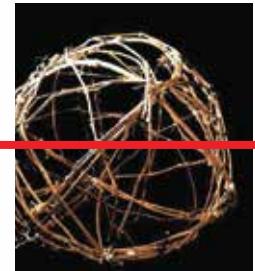
3. Weave the ho cut strips together to form a rectangular sheet





Note: These materials have inherent variation, therefore included below are 2 more possible sphere constructions. The guidelines given are for a general system of construction and each sphere may or may not turn out identical.

Note: For general dimensions see Section A-A on sheet A-4.



horizontally and vertically  
her to make a woven  
et



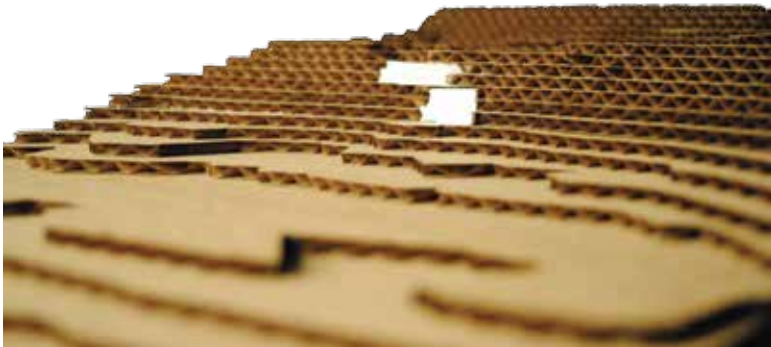
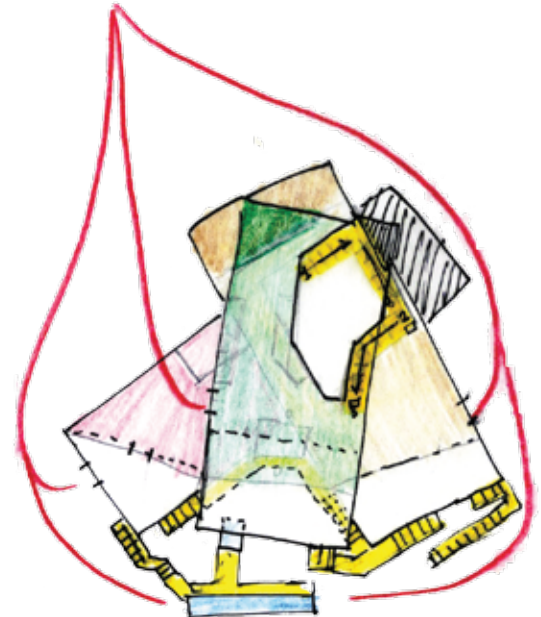
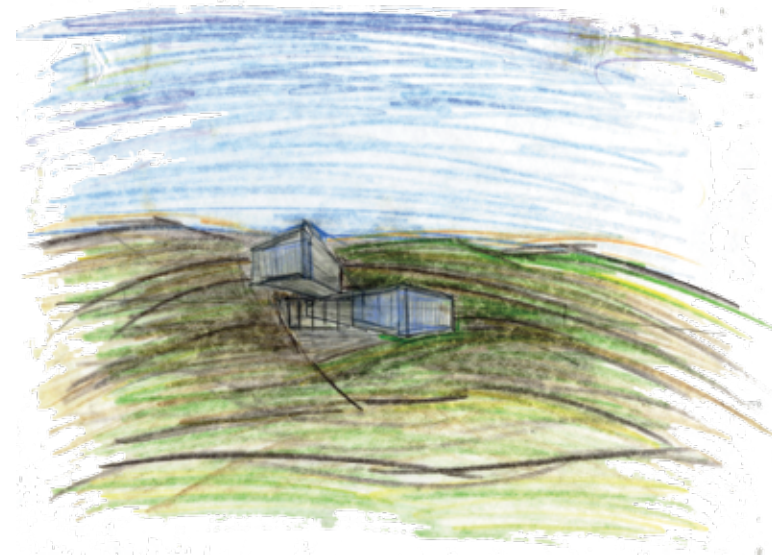
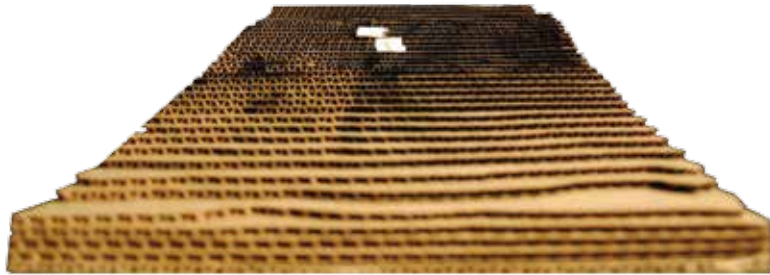
4. After the strips have been woven together, fold the edges down to help keep the sheet together then cut off the extra pieces



5. Use a rivet gun to fasten the woven sheets together around an existing sphere



6. Remove the internal sphere before finishing the sphere of woven sheets

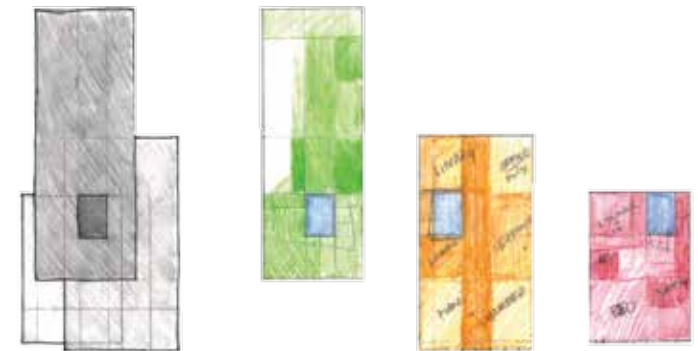
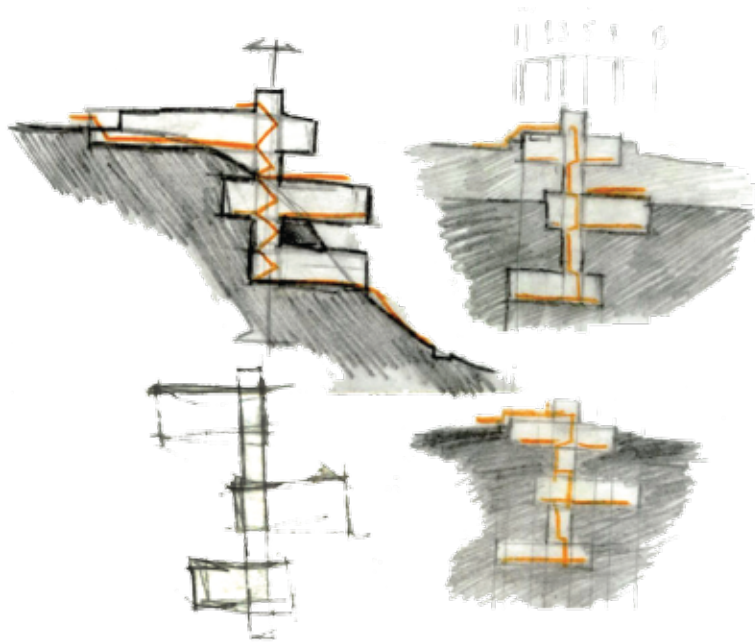


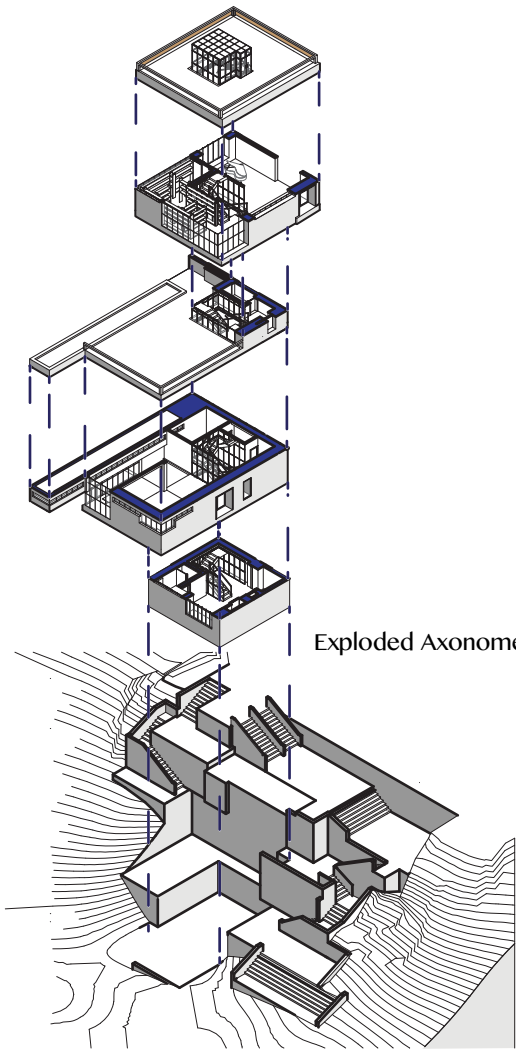




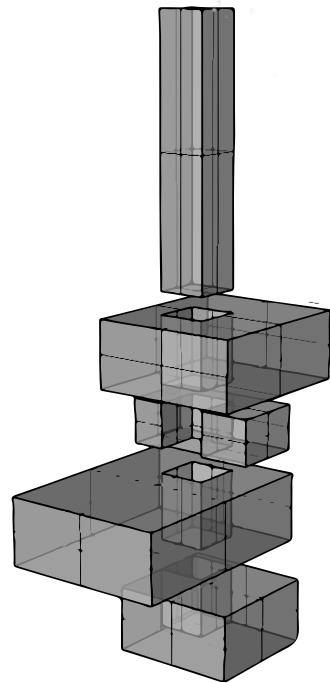
The House for a Musician was introduced as a project that addresses a specific client and steep sloped location. The house had to cater to the needs of a performing musician and young person, and deal with a sloping site down to a lake. The intention of my design was to separate the program elements by category and isolate them in different geometries. This idea then progressed into the forms being shifted horizontally and vertically, pierced by a central stair shaft.

The concept progressed into a dialogue between additive and subtractive forms being extracted from the landscape. This was the first time I heavily addressed firmly grounded architectural design.

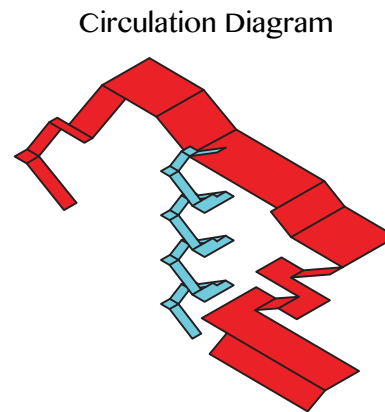
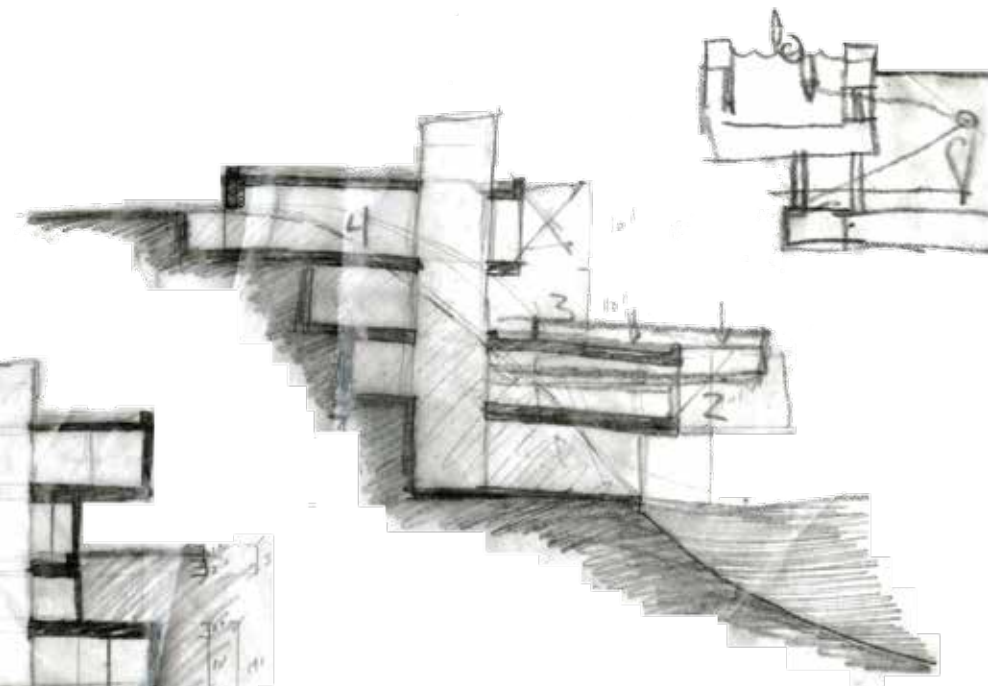
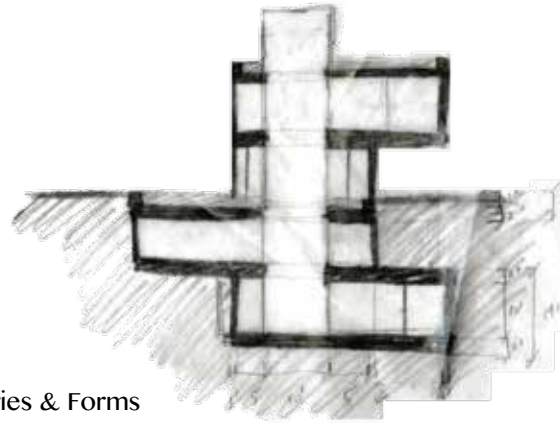




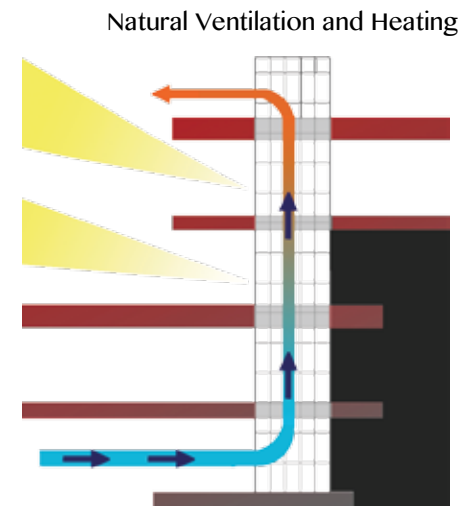
Exploded Axonometric



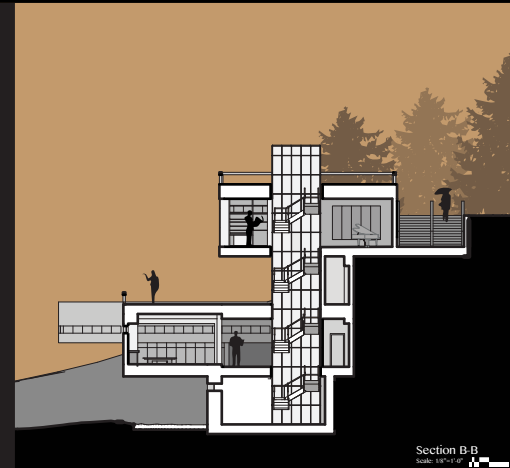
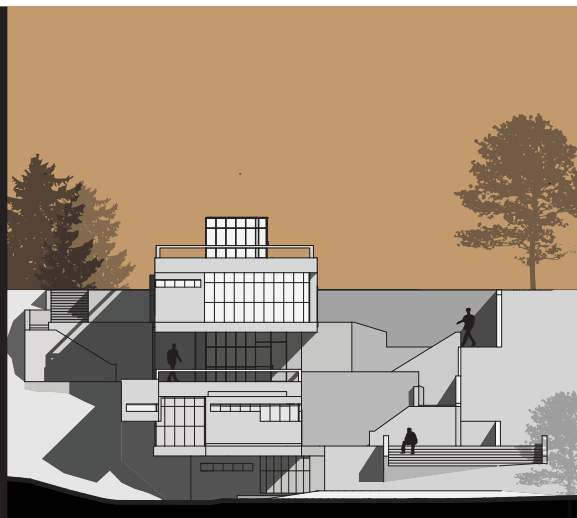
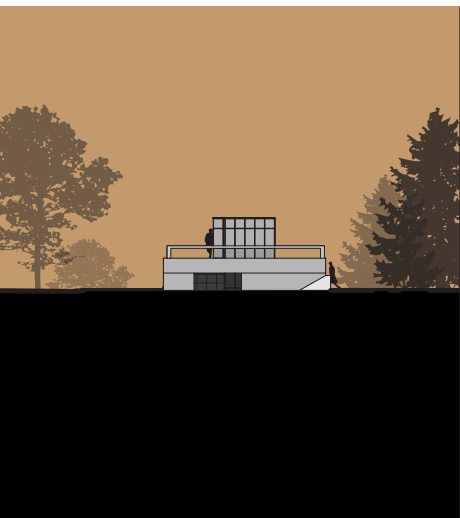
Basic Geometries & Forms



Circulation Diagram

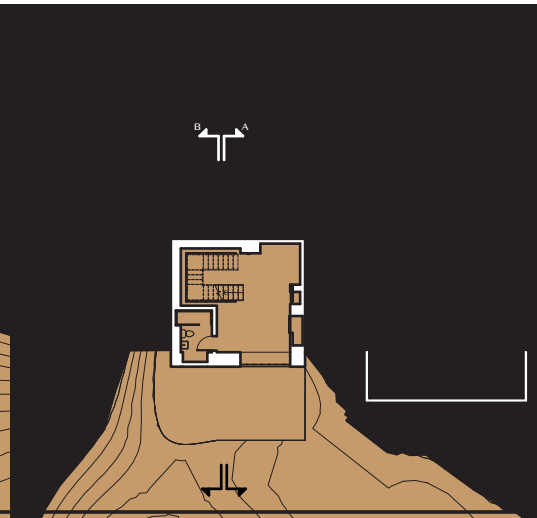
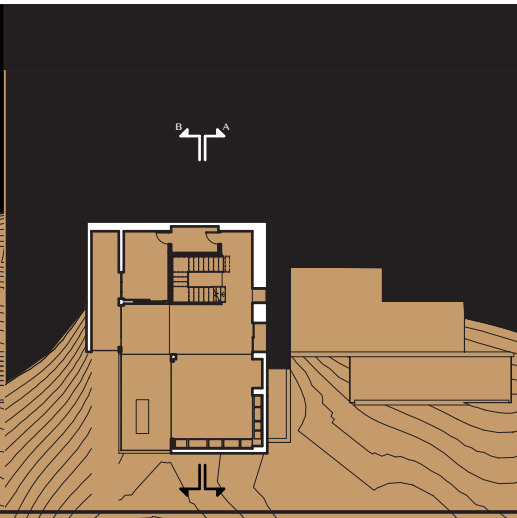
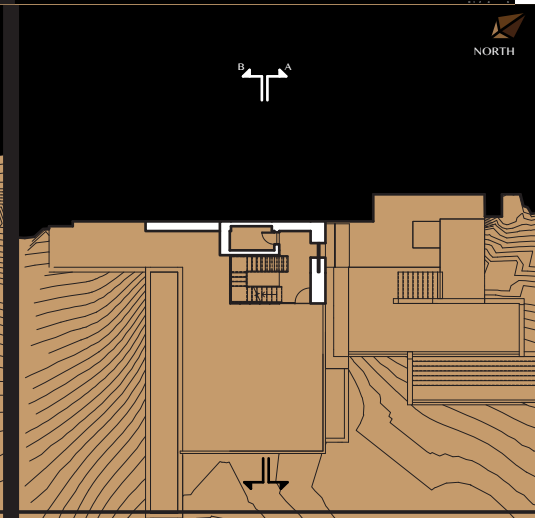
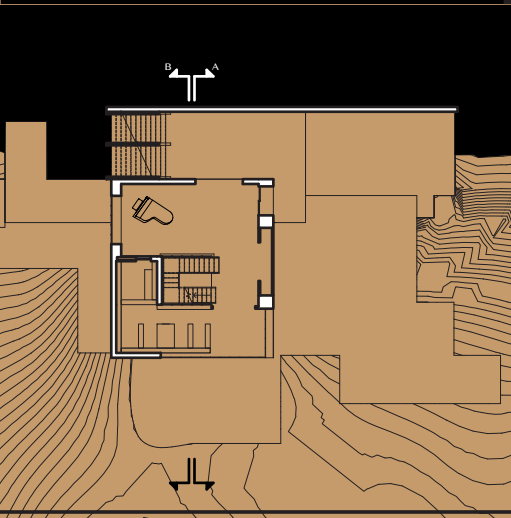






Eventually the design evolved into a stereotomic structure of carved out rooms and subconsciously divided space balancing with a precarious outer structure. It was a bold design that jutted out from the landscape, but was still heavily grounded.

The approach to site manipulation was to have the ability to access the house from any level, making the house more connected to the landscape.







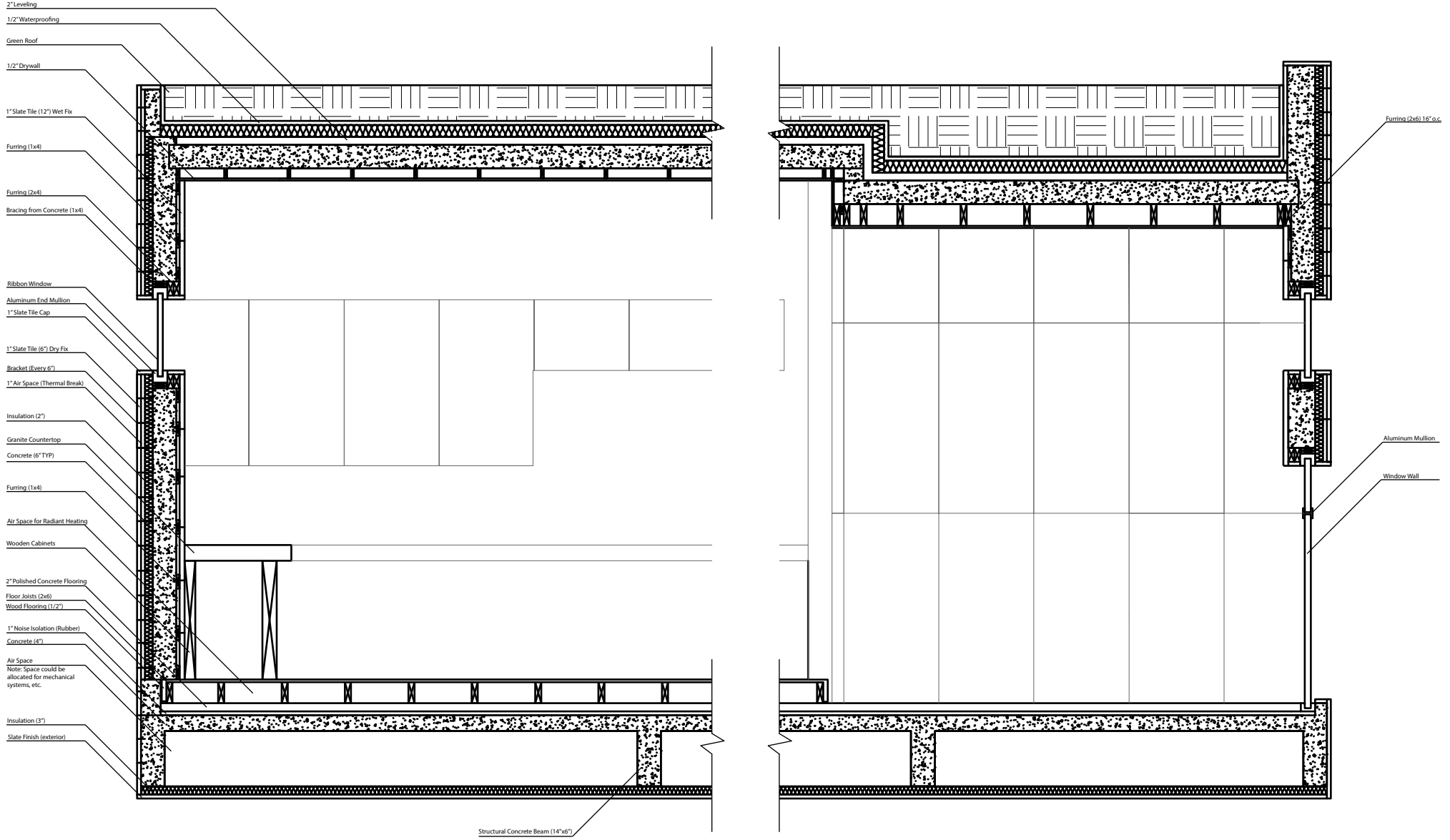
Master Bedroom



Kitchen and Living Space



Main Terrace with Pool



This wall section was a continuation of analysis of the musician house. We learned about materials and drawing methods.



# THE AMERICAN FOLK ART MUSEUM

Precedent Analysis

